

# task\_g8dmewbkx5ym2462\_with\_calculation

## Student Group

First Name	Surname	Matrikel Nr.

## Table of Contents

Exercise E1 Charges on a Ballon .....	2
---------------------------------------	---

charges, ballon, chapter1 2

## Exercise E1 Charges on a Ballon

A balloon has a charge of  $Q=7\text{ nC}$  on its surface.

**Result** How many additional electrons are on the balloon?

Solution

$$\begin{aligned} & 43.7 \cdot 10^9 \text{ electrons} \end{aligned}$$

$$\begin{aligned} Q &= 7 \text{ nC} = 7 \cdot 10^{-9} \text{ C} \\ n_{\text{e}} &= \frac{7 \cdot 10^{-9} \text{ C}}{1.6022 \cdot 10^{-19} \text{ C/electron}} = \\ & 43.7 \cdot 10^9 \text{ electrons} \end{aligned}$$

From:

<https://first.mexle.te.hs-heilbronn.de/> - **MEXLE Wiki**

Permanent link:

[https://first.mexle.te.hs-heilbronn.de/ee1/task\\_g8dmewbkx5ym2462\\_with\\_calculation](https://first.mexle.te.hs-heilbronn.de/ee1/task_g8dmewbkx5ym2462_with_calculation)

Last update: **2023/04/03 11:28**

